

Optimal placement of PMUs in the electric power system for solving the problem of state estimation in centralized emergency control system and sustainability monitoring system.

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The article describes solution of the problem of optimal location of the PMU and the development of placement criteria aimed to improve the results of the state estimation. A software module was created and tested on the task of the arrangement of vector measurement devices based on the information on network topology using integer linear programming. Calculations of the maximum permissible flows and selection of control actions have been made in the scheme of the Crimea power system.

Keywords: state estimation, SCADA, WAMS, PMU, linear integer programming, maximum permissible flows.